



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,868	08/28/2003	Masahiro Irie	K-2128	6378

32628 7590 12/16/2004

HAUPTMAN KANESAKA BERNER PATENT AGENTS
SUITE 300, 1700 DIAGONAL RD
ALEXANDRIA, VA 22314-2848

EXAMINER

LAMBKIN, DEBORAH C

ART UNIT	PAPER NUMBER
----------	--------------

1626

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,868

Applicant(s)

IRIE, MASAHIRO

Examiner

Deborah C Lambkin

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001-49244 (Chem. Abs.134:186014).

This reference teaches a genus of diarylethene-perfluorocyclopentene photochromic compounds which when R2 is alkoxy and A is (substituted) condensed polycyclic aromatic group or a (substituted) polyphenyl group cross embraces the instant genus when A and B are thienyl, R1 is alkoxy and R2 is Q-Ar.

It would have been prima facie obvious to one having ordinary skill in the art at the time the application was filed to choose a species from a prior art genus, motivation being that said species would be expected to possess the same or similar results as their exemplified counterparts, absent some unobvious or unexpected results.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001-48875, JP-2000-321714, JP-2000-256665, JP-2000-256664 and Chem.Abs. CA121:235806 (Masahiro) in view of JP-2001-49244.

JP-2001-48875, JP-2000-321714, JP-2000-256665, JP-2000-256664 and Chem.Abs. CA121:235806 (Masahiro) all teach diarylethene photochromic compounds which differ from those of the instant application by having an alkyl group instead of an alkoxy group at the 2-position of the heteroaryl ring.

JP-2001-49244 teach that in essentially the same compounds for the same use, the 2-position of the A or B ring can be substituted with alkyl or alkoxy.

Consequently, it would have been prima facie obvious to one having ordinary skill in the art at the time the application was filed to substitute alkyl with alkoxy in otherwise known diarylethene photochromic compounds, motivation being that alkyl and alkoxy have been taught to be interchangeable groups and therefore obvious variants, wherein the resultant compounds would be expected to possess the same or similar properties, absent some unobvious or unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah C. Lambkin whose telephone number 571-272-0698.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane, can be reached on 571-272-0699.

DEBORAH C. LAMBKIN
PRIMARY EXAMINER



Deborah C. Lambkin
Primary Patent Examiner
Art Unit 1626